METHOD AND APPARATUS FOR BLANKING T-WAVES FROM COMBIPOLAR ATRIAL CARDIAC SIGNALS BASED ON EXPECTED T-WAVE LOCATIONS

Abstract of the Disclosure

The stimulation device blanks T-waves from the atrial channel of an electrical cardiac signal by employing a T-wave blanking interval localized to the expected location and duration of the T-wave. To this end, the stimulation device determines the average interval between an R-wave and a T-wave in the patient in which the device is implanted and also determines the average duration of a T-wave within the patient. A T-wave blanking interval is initiated following the average R-T interval subsequent to detection of an R-wave and lasts for a period of time equal to the average T-wave duration. In this manner, highly localized T-wave blanking is achieved permitting P-waves or other atrial signals to be detected during remaining non-blanked portions of the atrial channel of the cardiac signal at least for the purposes of atrial rate detection. The relatively short T-wave blanking interval of the invention is particularly well suited for use in combipolar sensing systems. Method and apparatus implementations are described.